



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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NOTICE OF ACCEPTANCE (NOA)

Sika Sarnafil, A Division of Sika Corp.
100 Dan Road
Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Lightweight Concrete Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 14-0624.14 and consists of pages 1 through 39.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 15-0731.13
Expiration Date: 07/17/17
Approval Date: 06/30/16
Page 1 of 39

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Lightweight Concrete
Maximum Design Pressure: -270 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
Textured G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
Textured G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 (10 ft)	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane with a non-woven felt backing.
Sikaplan Adhered	60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Ply Sheet TA 87	39" x 49' (1.5 sq.)	ASTM D6136	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Base Sheet NB 48	39" x 108' (3.5 sq.)	ASTM D4601	Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate.
Ply Sheet HA 87	39" x 49' (1.5 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**TABLE 1**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Sarnacol AD Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane or insulation adhesive.
Sikaplan Water Based Membrane Adhesive	5 gallons	Proprietary	Water-based dispersion membrane adhesive.
Sarnacol OM Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing



APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Sarnatherm	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm 25 PSI	Polyisocyanurate insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
ACFoam-II	Isocyanurate Insulation with fiber reinforced felt paper facer	Atlas Roofing Corp.
ACFoam-III	Isocyanurate Insulation with coated glass facer	Atlas Roofing Corp.
ACFoam-IV	Isocyanurate Insulation with heavy weight coated glass facer	Atlas Roofing Corp.
ENRGY 3	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic
DensDeck Prime	Silicon treated gypsum with an enhanced fiberglass mat facer	Georgia Pacific Gypsum LLC
H-Shield	Isocyanurate Insulation with fiber reinforced felt paper facer	Hunter Panels, LLC
H-Shield HD	High density polyisocyanurate cover board with a coated glass facer	Hunter Panels, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum-fiber cover board	United States Gypsum Corp.
SECUROCK Glass-Mat Roof Board	Gypsum cover board with a glass mat facer	United States Gypsum Corp.
Invinsa Roof Board	High density polyisocyanurate cover board with a coated glass facer	Johns Manville Corp.

APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	CR Assembled Base Sheet Fastener (1.7")	Insulation and membrane fastener	1.125" head 1.75" long	OMG, Inc.



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Exterior Research & Design	02767.02.06	TAS 114	02/08/06
Factory Mutual Research Corporation	2B8A4.AM	FM 4470	07/02/97
	0D3A3.AM	FM 4454	04/04/97
	IZ5A6.AM	FM 4470	07/18/97
	1D7A5.AM	FM 4470	07/18/97
	2D3A5.AM	FM 4470	06/04/98
	2D0A0.AM	FM 4454	12/23/98
	3016201	FM 4470	01/28/03
	3028309	FM 4470	03/30/07
	3032532	FM 4470	08/05/08
	3041256	FM 4470	07/12/11
	3001396	FM 4470	05/28/99
	3039809	FM 4470	07/06/11
	3043459	FM 4470	05/11/12
	3002351	FM 4470	02/28/03
	3022038	FM 4454	04/05/06
	3024594	FM 4454	05/19/06
	3036355	FM 4470	11/10/09
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity ERD	S44790.06.13	ASTM D4434	06/05/13
	S42480.08.12	Physical Properties	08/20/12
	S44790.08.13	ASTM D4434	08/26/13
	S44790.07.14-R2	ASTM D4434	06/01/15
	SC7090.07.14-2-R6	FM 4474 & TAS 114	09/29/15

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies</u>	<u>Date</u>
FM Approval Deck Limitation	N/A	E(1) through E(4) and F(2)	06/22/16

APPROVED ASSEMBLIES:

Membrane Type:	Single Ply, PVC
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Min. 270 psi Mearlcrete or min. 240 psi Elastizell cast over structural concrete
System Type A(1):	One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Tapered	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With *ACFoam-II*, *ACFoam-III*, *Sarnatherm (a)* and *Sarnatherm-25 PSI*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-97.5 psf; PVC membranes with Sarnacol 2170 VC adhesive (See General Limitation #9)
-117 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete or min. 240 psi Elastizell cast over structural concrete
System Type A(2): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Tapered	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -117 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 240 psi Elastizell cast over structural concrete
System Type A(3): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



Or

(*With AC Foam-II, AC Foam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-97.5 psf; PVC membranes with Sarnacol 2170 VC adhesive (See General Limitation #9)
-120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)
-180 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 240 psi Elastizell cast over structural concrete
System Type A(4): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, AC Foam-II, AC Foam-III, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -180 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 240 psi Elastizell cast over structural concrete
System Type A(5): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield or Minimum 2.0 pcf Approved XPS, EPS (Not used with Sarnacol 2170 or Sarnacol 2170 VC) Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive or Sarnacol 2170 VC adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or



Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal./sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

- 120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)
- 127.5 psf; with Sarnacol 2170 VC adhesive (See General Limitation #9)
- 180 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 240 psi Elastizell cast over structural concrete
System Type A(6): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield or Minimum 2.0 pcf Approved XPS, EPS (Not used with Sarnacol 2170 or Sarnacol 2170 VC) Minimum: 1.5" thick	N/A	N/A

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -180 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete or min. 240 psi Elastizell cast over structural concrete
System Type A(7): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Approved XPS or EPS Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or



Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)

-180 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete or min. 240 psi Elastizell cast over structural concrete
System Type A(8): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Approved XPS or EPS Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -180 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete cast over structural concrete
System Type A(9): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield or Minimum 2.0 pcf Approved XPS, EPS (Not used with Sarnacol 2170 or Sarnacol 2170 VC) Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive or Sarnacol 2170 VC adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or



Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal./sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

- 120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)
- 127.5 psf; with Sarnacol 2170 VC adhesive (See General Limitation #9)
- 202.5 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete cast over structural concrete
System Type A(10): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield or Minimum 2.0 pcf Approved XPS, EPS (Not used with Sarnacol 2170 or Sarnacol 2170 VC) Minimum: 1.5" thick	N/A	N/A

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete cast over structural concrete
System Type A(11): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield Minimum: 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



Or

(*With AC Foam-II, AC Foam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-97.5 psf; with Sarnacol 2170 VC adhesive (See General Limitation #9)
-120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)
-210 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Min. 270 psi Mearlcrete cast over structural concrete

System Type A(12): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -210 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete cast over structural concrete
System Type A(13): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With AC Foam-II, AC Foam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



Or

(*With AC Foam-II, AC Foam-III, Sarnatherm (a) and Sarnatherm-25 PSI*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-97.5 psf; with Sarnacol 2170 VC adhesive (See General Limitation #9)
-120.0 psf; with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive (See General Limitation #9)
-225 psf; with all other applications (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4I: Lightweight Concrete, Insulated
Deck Description: Min. 270 psi Mearlcrete cast over structural concrete
System Type A(14): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, ENRGY 3, H-Shield Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the LWC deck in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -225 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Elastizell Range II Cellular Lightweight Insulating Concrete, Min. 160 psi, cast over deck with min. 2" EPS Holey Board embedded in 1/8" slurry. Followed by a min. 2" top coat of Elastizell Range II Cellular Lightweight Insulating Concrete. Cast over structural concrete.

System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Deck: Minimum 22 ga., Grade 33, Type BV steel decking attached to supports spaced 5' o.c. maximum using min. 5/8" puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx/1 #10 evenly spaced between supports or structural concrete deck.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

Base Sheet: Base Sheet NB 48 fastened to the deck as described below:

Fastening: Attach base sheet using OMG CR Assembled Base Sheet Fasteners (1.7") spaced 7" o.c. in a 4" lap and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet (Optional): Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressure: -45 psf (See General Limitation #7.)



Membrane Type: Single Ply, PVC

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Mearlcrete Lightweight Insulating Concrete, Min. 200 psi, cast over deck with min. 1" EPS Holey Board embedded in 1/8" slurry. Followed by a min. 2" top coat of Mearlcrete Lightweight Insulating Concrete. Cast over structural concrete or steel deck.

System Type E(2): Base sheet mechanically fastened.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Deck: Minimum 22 ga., Grade 33, Type BV steel decking attached to supports spaced 5' o.c. maximum using min. 3/8" puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx/1 #10 evenly spaced between supports or structural concrete deck.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

Base Sheet: Base Sheet NB 48 fastened to the deck as described below:

Fastening: Attach base sheet using OMG CR Assembled Base Sheet Fasteners (1.7") spaced 7" o.c. in a 4" lap and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet (Optional): Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressure: -45 psf (See General Limitation #7.)



Membrane Type: Single Ply, PVC

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Mearlcrete Lightweight Insulating Concrete, Min. 200 psi, wet cast density 40 pcf, with 1.5" EPS board embedded in 1/8" slurry. Followed by, wet cast density 40 pcf, min. 2" thick top coat.

System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Deck: Minimum 22 ga., Grade 33, Type BV steel decking attached to supports spaced 5' o.c. maximum using min. 3/8" puddle welds (every corrugation). Steel deck side laps are attached with two Traxx/1 #10 evenly spaced between supports or structural concrete deck.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

Base Sheet: Base Sheet NB 48 fastened to the deck as described below:

Fastening: Attach base sheet using OMG CR Assembled Base Sheet Fasteners (1.7") spaced 7" o.c. in a 4" lap and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressure: -52.5 psf (See General Limitation #7.)



Membrane Type: Single Ply, PVC

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Celcore MF Cellular Concrete; min. wet cast density of 38 lbs./ft³, min. 350 psi, over 22 ga steel decking or structural concrete.

System Type E(4): Base sheet mechanically fastened.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: 22 ga., Grade 33, Type B steel deck installed and welded to minimum 0.25 in. thick steel structural supports spaced maximum 6' o.c. using 3/8" diameter weld washers 6" o.c. at each bearing. The deck side laps are fastened at 30" o.c. using Traxx/1 fasteners.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

LWC Deck: Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with a minimum wet cast density of 38 lbs./ft³, filling the corrugation with a minimum depth of 1/8". The Celcore HS admixture was added to the mixture during the mixing process at a rate of 3.4 fl. oz. per 100 lbs. of cement. Minimum 1" thick Holey Boards are then immediately placed in a brick-like pattern into the wet concrete and allowed to set overnight. The following day, a minimum 2" thick topping layer of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture is placed atop the EPS at a wet cast density of 38 lbs./ft³. After an overnight set, Celcore PVA Curing Compound is spray applied to the lightweight concrete at a rate of 0.33 gal./sq. and allowed to dry for 48 hours.

Base Sheet: Base Sheet NB 48 fastened to the deck as described below:

Fastening: Attach base sheet using OMG CR Assembled Base Sheet Fasteners (1.7") spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressure: -60.0 psf (See General Limitation #7.)



Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Insulcel Lightweight Concrete (200 psi minimum) over 18-22 ga Steel Deck
System Type F(1): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Minimum 33ksi, 18-22 ga Type B-36galvanized steel decking, welded to structural supports spaced 5' o.c. maximum using 3/8" puddle welds at every corrugation (every bottom flute). Steel deck laps are attached with Elco 10-16 x3 and #8260 4in. HWH Type 1, Elco 10-16 x 3 and #8260 4in. HWH Type 3 Drilltite, Hilti S-MD 10-16 x 7/8 HHWH Pilot Point, ITW ICH Traxx/1, or ITW Stitch Teks1 at a maximum spacing of 20" o.c.

LWC Deck: 1" to 12" thick Mearl Corrugated EPS Board or Holey Board Rigid insulation panels shall be placed in a minimum 2" of Insulcel Lightweight insulating concrete (min 200psi). Immediately apply a minimum 2" thick top coat of Insulcel Lightweight Insulating concrete (min. 200psi). Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer coat at a rate of 0.8 – 1.0 gal/sq, allowed to dry and applied in a final coat at a rate of 0.8 – 1.0 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Elastizell Lightweight Insulating Concrete (160 psi minimum) over 22 ga Steel Deck
System Type F(2): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Minimum 33ksi, 22 ga Type BW fluted steel decking, welded to structural supports spaced 5' o.c. maximum using 3/8" welding washers at every corrugation (every bottom flute). Steel deck laps are attached with 4 #10 steel self tapping screws evenly spaced between purlins.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

LWC Deck: Elastizell Lightweight Insulating Concrete, min. 160 psi, is applied with an 1/8" slurry coat followed by a 2" Star-R-Foam Gripper-HB or 1/12" Apache Holey Board. Apply a minimum 2" thick top coat of Elastizell Lightweight Insulating concrete.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 0.8 – 1.0 gal/sq, allowed to dry and applied in a final coat at a rate of 0.8 – 1.0 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -60 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Celcore Cellular Lightweight Concrete (200 psi minimum) over 18-22 ga Steel Deck with max. structural support spacing of 6 ft.

System Type F(3): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: 18-22 ga. Grade 33, Type B, vented steel deck shall be secured to ¼” thick structural supports spaced a maximum spacing as listed below in Table A with ITW Buildex Traxx/5 at the bottom of each rib (6” o/c.)

LWC Deck: Approved rigid insulation panels listed in the current Celcore Cellular Lightweight Concrete NOA shall be placed in a minimum 1/8” slurry-coat of insulating concrete, while the material is still in a plastic state. **Insulation panels and slurry coat shall be left to cure overnight before the installation of the topcoat.** The following day a 2” minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane. After setting of the topcoat to support foot traffic, Celcore PVA compound shall be applied at a minimum rate of 300 ft² per gallon (7.2m²/l).

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 0.8 – 1.0 gal/sq, allowed to dry and applied in a final coat at a rate of 0.8 – 1.0 gal/sq. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Table A	
Max. Design Pressure (See General Limitation #9)	Max. Structural Support Spacing
-60 psf.	6 ft.
-75 psf.	5 ft.
-90 psf.	4 ft.

Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Celcore Cellular Lightweight Concrete (200 psi minimum) over Structural Concrete Deck
System Type F(4): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Structural Concrete Deck

LWC Deck: Approved rigid insulation panels listed in the current Celcore Cellular Lightweight Concrete NOA shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state. **Insulation panels and slurry coat shall be left to cure overnight before the installation of the topcoat.** The following day a 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane. After setting of the topcoat to support foot traffic, Celcore PVA compound shall be applied at a minimum rate of 300 ft² per gallon (7.2m²/l).

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 0.8 – 1.0 gal/sq, allowed to dry and applied in a final coat at a rate of 0.8 – 1.0 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -135 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Celcore Cellular Lightweight Concrete (200 psi minimum) over Structural Concrete Deck
System Type F(5): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Structural Concrete Deck.

LWC Deck: Min. 1" Holey Board Rigid insulation panels shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state.
Insulation panels and slurry coat shall be left to cure for four (4) hours before the installation of the topcoat. A 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -135 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Insulcel Lightweight Concrete (200 psi minimum) over Structural Concrete Deck
System Type F(6): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Structural Concrete Deck

LWC Deck: Minimum 2" of Insulcel Lightweight insulating concrete (min 200psi). Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane. Roof cover shall be applied within 36-72 hours.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -270 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Insulcel Lightweight Concrete (200 psi minimum) over Structural Concrete Deck
System Type F(7): Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Structural Deck: Structural Concrete Deck

LWC Deck: 1” to 12” thick Mearl Corrugated EPS Board or Holey Board Rigid insulation panels shall be placed in a minimum 1/8” of Insulcel Lightweight insulating concrete (min 200psi) applied to water sprayed concrete. Apply a minimum 2” thick top coat of Insulcel Lightweight Insulating concrete (min. 200psi).
Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Maximum Design Pressure: -270 psf. (See General Limitation #9)



LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For Systems where specific lightweight insulating concrete is referenced consult current lightweight insulating concrete NOA for specific deck construction and limitations. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 15-0731.13
Expiration Date: 07/17/17
Approval Date: 06/30/16
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